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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,957	08/01/2003	Mark C. Smith	44219	2530

7590 10/23/2006

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EXAMINER

RODRIGUEZ, JOSEPH C

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/631,957

**Applicant(s)**

SMITH, MARK C.

**Examiner**

Joseph C. Rodriguez

**Art Unit**

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-21,23,24 and 26-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-21,23,24 and 26-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

***Non-Final Rejection***

Applicant's arguments filed 6/15/06 have been fully considered but they are not persuasive for reasons detailed below.

The 35 U.S.C. 112 rejections are maintained or modified as follows:

These rejections have been withdrawn.

The prior art rejections are maintained or modified as follows:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17-19 and 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Kennedy et al. ("Kennedy")(US 6,726,021).

Regarding claims 17-18, 26, 27, Kennedy (Fig. 1, 2) teaches a method for separating mixed particulate material into particles of at least two different specific gravities, comprising:

providing mixed particulate material to at least one mixed particulate material separating apparatus including a separating chamber (13) and an angle of entry

connection, the angle of entry connection being angled upwardly with respect to the separating chamber (**Fig. 1, near upwardly curved output end of 11 which creates an angle of entry connection of about 45 degrees as evidenced by particle discharge path and flow arrow that strikes separating chamber wall**);

creating a vacuum which provides suction to the separating chamber to draw mixed particulates into the separating chamber through the angle of entry connection so that mixed particular material has both upward and horizontal velocity components (col. 2, ln. 33-col. 4, ln. 54;

separating the mixed particulate material into a lower and a higher specific gravity by the vacuum pulling at least a portion of the first group of mixed particulate material up and out of the first mixed particulate material separating apparatus and allowing the second group of mixed particulate material to fall from the first mixed particulate material separating apparatus (Fig. 1).

Regarding claim 19, the step of releasing the collected material at a predetermined time interval can be regarded as the step of releasing the openable door after the separation has been completed (col. 4, ln. 19-33).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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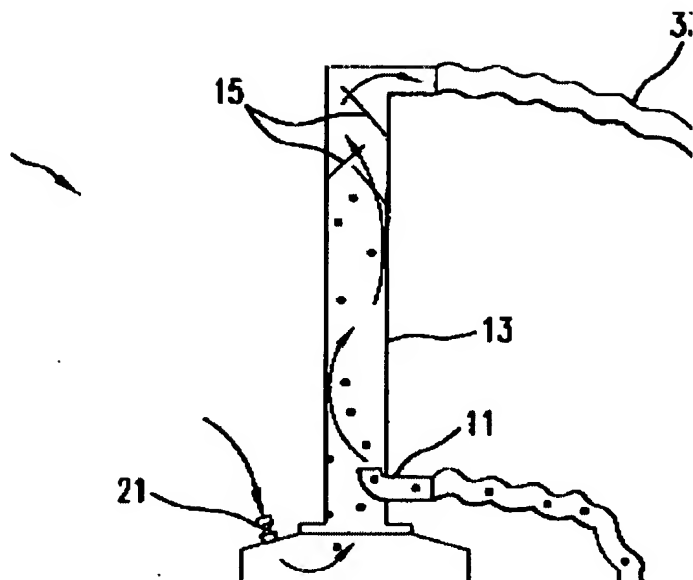
said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-21, 23-24 and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy et al. ("Kennedy")(US 6,726,021) in view of Colburn (US 3,843,060).

Kennedy as set forth above teaches all that is claimed except for expressly teaching moving the initially separated mixed particulate material to a second mixed particulate material separating apparatus through a discharge tube, wherein the material is separated into a lower specific and a higher specific gravity by the flow of air and transported away from said material separating apparatus. Colburn, however, teaches using two specific gravity separation steps in series to achieve a more thorough separation (Fig. 2, showing various separators in series connected with discharge tubes; col. 3). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Kennedy with a further separation step as taught by Colburn to obtain a more thorough separation.

### ***Response to Arguments***

Applicant's arguments that the prior art fails to teach the claimed features are unpersuasive. In particular, Applicant's arguments that Kennedy fails to teach an angled discharge connection is unpersuasive in view of the prior art (see figure below).



As the figure above indicates, the particles clearly enter the chamber at an angle and then strike the chamber wall multiple times before being outputted. Further, Kennedy describes the stoppers as being swirled in the chamber (col. 4), thus it logically follows that said stoppers strike the chamber wall. Applicant's arguments to the contrary are thus unpersuasive in view of the teachings of the prior art. Consequently, the claims stand rejected.

### ***Conclusion***

Any references not explicitly discussed above but made of record are considered relevant to the prosecution of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Joseph C Rodriguez** whose telephone number is **571-272-6942** (M-F, 9 am – 6 pm, EST).

The **Official** fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

The examiner's **UNOFFICIAL Personal fax number** is **571-273-6942**.

Further, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PMR only.

For more information about the PAIR system, see

**<http://pair-direct.uspto.gov>**

Should you have questions on access to the Private PMR system, contact the Electronic Business Center (EBC) at **866-217-9197** (Toll Free).

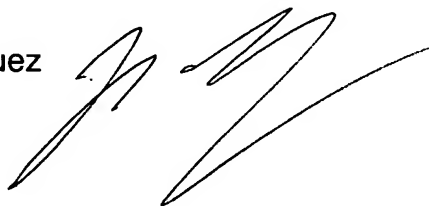
Alternatively, inquiries of a general nature or relating to the status of this application or proceeding can also be directed to the **Receptionist** whose telephone number is **571-272-6584** or to the Supervisory Examiner, Patrick Mackey, **571-272-6916**.

Signed by Examiner Joseph Rodriguez

jcr

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October 7, 2006

A handwritten signature in black ink, appearing to be 'JR' followed by a stylized flourish.